

## e-ID – Estonian Success Story

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## Estonia

### Northeast Baltic country

- Area: 45 000 km<sup>2</sup>
- Population: 1,4 million
- 46% households have internet connection
- 800 000 internet users (65% of the population aged 6-74)
- 82% tax declarations are handled online
- ID-card and Mobiil-ID is used for login by  
70 000 persons

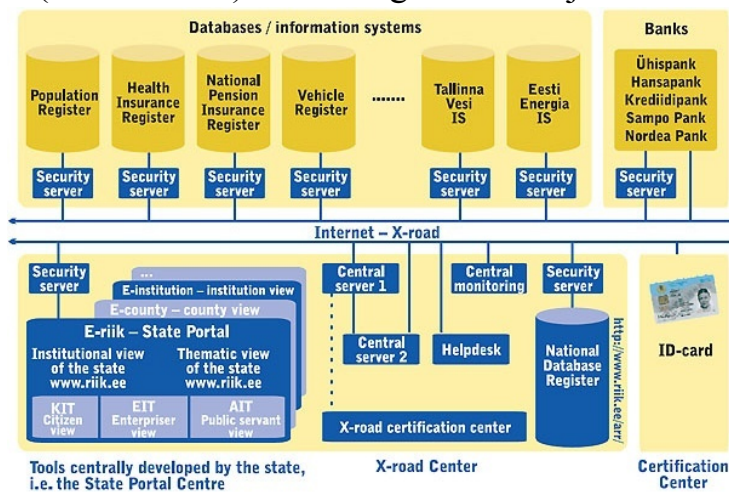
# Gateway to e-state

<http://www.eesti.ee/eng/>



## Basic's – X-Road or “Internet Highway”

connecting databases into a common public, service-rendering resource (started 2001). > 350 organizations joined.



## X-tee: for citizen

“Show me information about me in peoples/business register”

“Show me information about my real-estate”

“Tell which vehicles I own currently”

“How is my child doing in school?”

“I’d like to apply ..... for new passport, health insurance card etc, etc.“

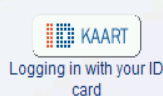
And last...

“Tell me, who has accessed data concerning me lately”.

## Logging into the portal

In order to use the services, the user needs to be authenticated with an ID card, with a mobile telephone or via Internet banking application.

By logging in, you will automatically accept the terms of usage of the state portal.

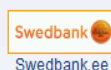


This requires that an ID card reader is connected to the computer and the relevant software is installed. This software connects the equipment and ensures the use of the ID card in various Internet environments requiring authentication. You can find information about setting up your computer on the page „Help with logging in“. You will also need to know the PIN1 code of your ID card.



Mobile ID SIM card contains your mobile identity in addition to the usual functions of a SIM card – this mobile identity can be used by the Internet service providers for authenticating you. With Mobile ID, you can perform the same e-activities as with the ID card.

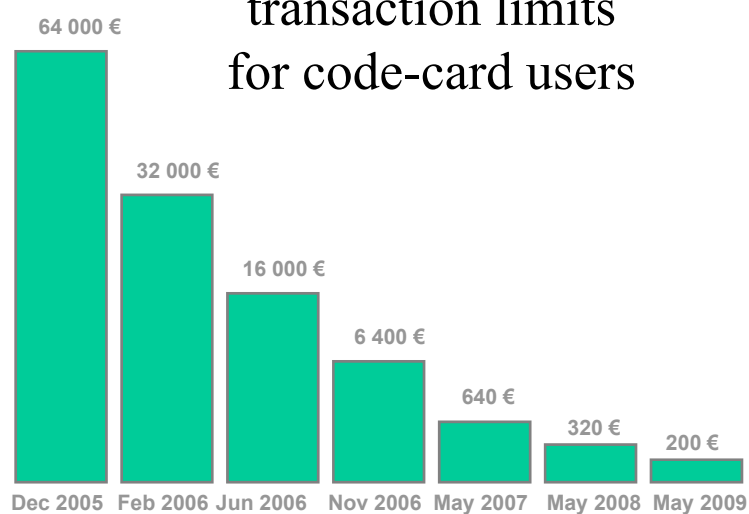
In order to log in via an Internet banking application, you will need to be a customer of an Internet banking application. The following banks offer the authentication service via Internet banking application: Swedbank, SEB Pank, Krediidipank, Sampo Pank, Nordea Pank. When logging in via an Internet banking application, you will be able to digitally sign only with an ID card.



## Authentication Mechanisms

- **Password cards**
  - Pro: cheap, easy to use,
  - Contra: usable only for one service, insecure - easy to copy.
- **PIN-calculators**
  - Pro: higher security level, easy to use,
  - Contra: price tag, usable only for one service, user needs to carry it
- **ID-card**
  - Pro: highest security level, legally digital signature, usable with different service providers
  - Contra: need for a smart card reader and specific software, no similar ID-cards in other countries
- **Mobile-ID**

## Banks decreased the daily transaction limits for code-card users





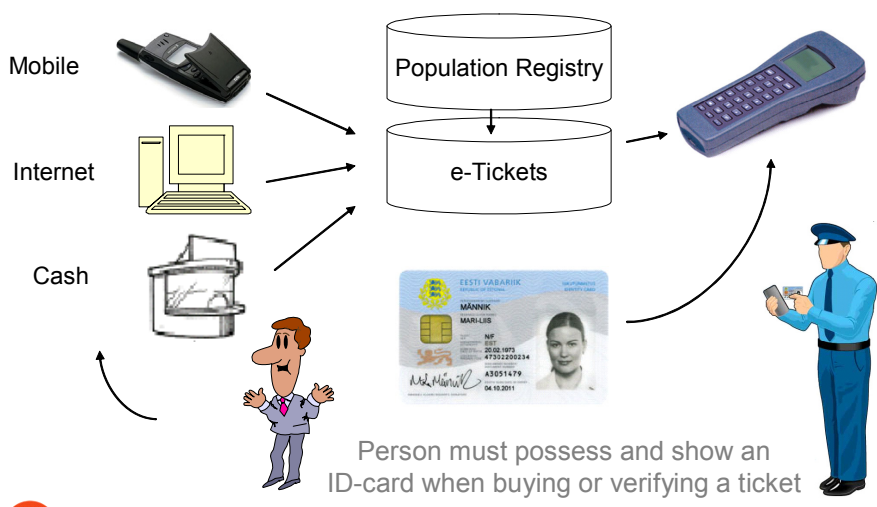


Most popular e-Services -  
e-Banking, e-Taxes, e-School

eKool




ID-card-based payment and control systems



Person must possess and show an ID-card when buying or verifying a ticket



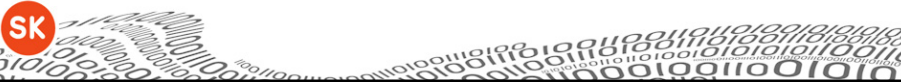
ID-card is just a secure token for different purposes

You present your ID-card and your status is checked against the appropriate databases:

e-Police  
e-Health  
e-Student  
e-Client  
...

whatever the person is entitled to

upon it one can build different services



## eVoting – 2007 elections to the Parliament



The Chairman of the National Electoral Committee Mr. Heiki Sibul is going to open the „e-ballot-box” on the first pilot in Tallinn, 2005 local elections

Estonia is the first country in the World allowing for Internet-voting:

- country-wide,
- without prior registration,
- with binding results;

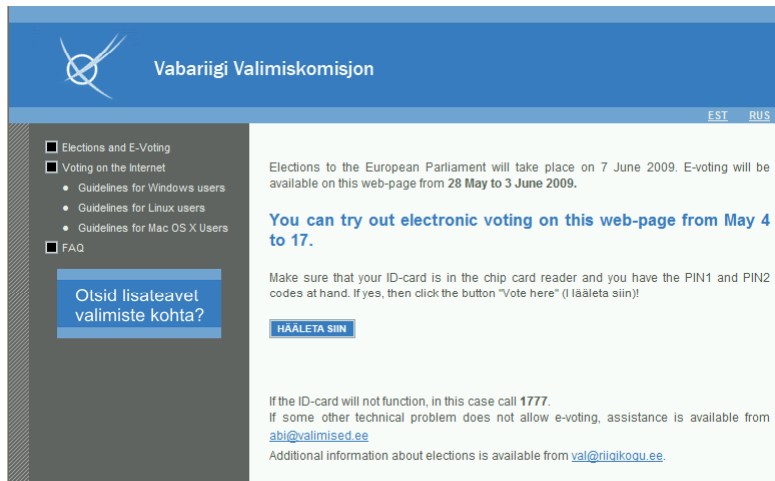
**30,275  
e-voters  
in 2007**





# e - voting

## 7 june – European Parliament



The screenshot shows the website for the Estonian Election Administration (Vabariigi Valimiskomisjon). The header is blue with the organization's logo and name. Below the header, there are language options for EST and RUS. A navigation menu on the left includes links for 'Elections and E-Voting', 'Voting on the Internet' (with sub-links for Windows, Linux, and Mac OS X users), and 'FAQ'. A prominent blue button asks 'Otsid lisateavet valimiste kohta?' (Do you want more information about the elections?). The main content area features a blue banner with the text: 'Elections to the European Parliament will take place on 7 June 2009. E-voting will be available on this web-page from 28 May to 3 June 2009.' Below this, it states 'You can try out electronic voting on this web-page from May 4 to 17.' and includes a 'HÄÄLETA SIIN' button. A note advises users to ensure their ID-card is in a chip card reader and they have their PIN1 and PIN2 codes. Contact information for technical assistance is provided, including the phone number 1777, the email [abi@valimised.ee](mailto:abi@valimised.ee), and the website [www.valimised.ee](http://www.valimised.ee).

[http://www.valimised.ee/index\\_eng.html](http://www.valimised.ee/index_eng.html)

SK (Sertifitseerimiskeskus AS)

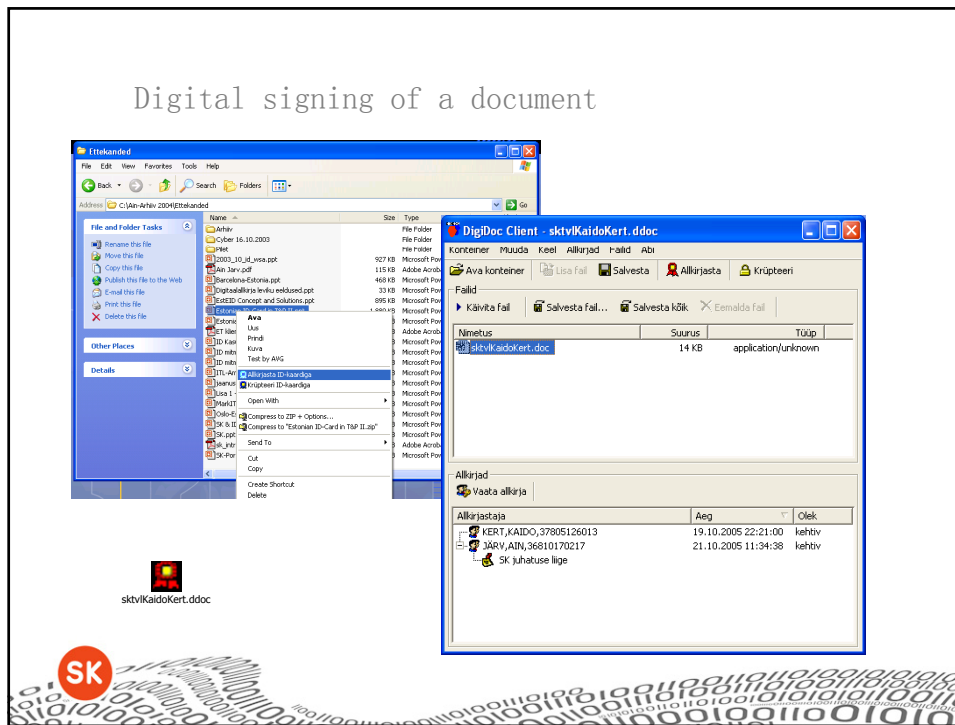
SK was established as a Certification Centre of Estonia in February 2001 by two leading Estonian banks Hansapank and SEB and two telecom companies Elion and EMT.

Today SK fields of activities are:

- A) Certification and timestamping services
- B) PKI technology and applications
- C) ID-card-based payment and control systems
- D) Management of Look@World Foundation



## Digital signing of a document




## Example cases

- Riik.ee
  - Citizens data queries
- SEB.ee
  - Payments
  - Digitally signed reports
  - Gateway to other partners
- Pilet.ee
  - Lets buy some e-tickets using phone
- e-school



## e-ID – Estonian Success Story



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